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YOUTH AND AGE.

HUMAN life is a series of developments, and at each new period some new power is unfolded; new experiences are likewise added: by which means not only are old prejudices frequently corrected, but the errors of our former conduct exposed, condemned, and punished. During the earlier epochs of our existence, we are impelled by dim instincts with such impetuosity as permits small opportunity for reflection—a time, however, at length arrives when the man comes to a pause, and reverts his contemplation on the path which he has so far traversed. How much, in the haste of the transit, has been overlooked and neglected—how much injured and defaced—how many mistakes have been committed—how many wrongs inflicted and suffered! Then follows the usual exclamation—"If my time were to come over again, how differently would I have acted! But ah! it is too late now!" And so the man commences again his swift career, hurrying afresh onward, and still onward, pursued by remorse and fear, until he reaches the goal—the grave.

Meditating these facts, we are sometimes tempted to believe, that if the prudence of age could be added to the impulse of youth, a great advantage might be gained for the individual. But a difficulty exists against blending them in one and the same person. Happy, however, is the man who benefits by the dear-bought experience of his elders; who, duly influenced by the example of those who are not only aged, but also good and wise, has learned, without suffering, what to avoid, and what to pursue. The counsel of a sage mentor in a parent, grandfather, or great-uncle, cannot fail of being advantageous in many important respects; but on the other hand, there are many counterbalancing disadvantages: the young are enterprising—the old prefer safety to victory, peace to anxiety. In advising youth, old persons accordingly regard rather the dangers to be escaped than the object to be attained. This, in the way of caution, may, must be well; but if it amounts to coercion, even in the slightest degree, it cannot fail to have evil consequences. If, instead of persuading or guiding the judgment, it should substitute a control upon the volition of the young, it will fatally preclude action, stopping it at its very source. We have not, in such a case, combination, but mere displacement: young impulse is altogether put aside, and antique prudence takes exclusive possession.

The caution of age should be used for the regulation, not for the annihilation, of the impulsive instincts of the ardent and juvenile. Another danger, too, arises. Antique prudence may be *obsolete* prudence; circumstances may so have changed, as to make it the reverse of prudence at all. The world of commerce affords

abundant instances of this, particularly in firms of long standing. A young man of good abilities, full of vigour, becomes, for instance, by right of birth, a junior partner in an old-established business, and deems his fortune made. But in a few years, the concern, to the surprise of all, sinks and perishes. The surprise is the greater, because, in the world's estimation, the house was always considered particularly safe. It meddled not with modern speculations, it relied on an exceedingly old connection, it did no business that it was not sure of—yet it failed. In fact, though it risked no losses, it achieved no gains; and thus in the end suffered more than it would have done from bad debts or mistaken speculations. Meanwhile let us imagine, or rather simply state—for we record facts—the position of the junior in the firm. What was it? Anything more distressing could scarcely be conceived. From the first he was powerless. He found an established method—a system of routine to which he was compelled to adhere. Of an enlightened understanding, and an enterprising spirit, he at first attempted innovation, and aimed at those sources of profit of which more youthful firms availed themselves; but was met so uniformly by the fixed habits and rooted prejudices of the older partners, that at length he succumbed to necessity, and fell himself, for the sake of peace, into the customary channels. Had he commenced business on his own account—thrown himself entirely on his own energies and resources, and been at once inspired by hope, and controlled by prudence, he would in all probability have achieved brilliant success.

Youth is proverbially rash, but the aged may show an equally dangerous rashness in holding doggedly to old and worn-out notions. Accustomed to venerate what has existed for generations without challenge, the older class of persons are prone to oppose the slightest attempt at modification, and they suffer accordingly. Many a warning, in the course of events, is received; yet age is obstinate, and persists in the old course—not because it is right, but because it is old. The association of ideas, sympathy, determination of character, a sense of pride, while it recognises the peril, and other like motives, induce age to disregard the symptoms, and inspire it with courage to endure martyrdom, rather than incur the shame of a submission to change. Thus the inveterate controversialist will not confess a proven truth though convinced; falsely apprehending as a defeat what, if candidly acknowledged, would be really a triumph, he wins a ruinous conquest, and wears a counterfeit laurel. Can we take up a newspaper without being made conscious of the hideous train of disasters which have ensued in various European countries from a rash and unphilosophic persistency in what ought to have been long since modified and accommodated to the spirit of the

age? The energies of France, outgrowing the routine of old dynasties, require a new electoral system: being refused, the nation indignantly dissolves the partnership between her and the sovereign. Such are the evils which flow from the substitution of the merely regulative for the dynamic forces themselves.

The last illustration presents the topic under a graver aspect than it was our intention to have considered. Thus drawn, however, to the subject, we cannot refrain from remarking how often we hear that said with pride regarding institutions and systems, which, rightly regarded, should be otherwise spoken of. 'Thus long has stood this system without one iota of change—here, as we stood centuries ago, do we yet stand—what was thought and professed then, is still thought and professed. Change has often been called for, but never granted; so that here, at least, we have one monument of the past that has never bent to the inconstant wind of human caprice.' If such a thing really exist in the world—which is gravely to be doubted—assuredly this is a questionable boast. The minds of masses of men being liable to a continual, though it may be slow and imperceptible change, it is impossible for any institution to go on unchangingly, without falling out of relation with the world. Its vital is changed for a nominal existence; and so far from deriving strength from its antiquity, it derives weakness and danger. Institutions of this kind may be flattered, up to the last day of their existence, with the external homage which they have been accustomed to receive, and ere four-and-twenty hours pass, they may be trampled on as noxious weeds, or quietly consigned to universal forgetfulness. Such catastrophes are clearly traceable to the error of setting up persistency as the law of the world, the real law being change. Man continually changes, and everything that would wish to live with him must consent to change too: everything must partake of his eternal rejuvenescence, or take the consequences of becoming too old.

It is the instinct and tendency of youth to transcend the limits of its actual experience. It presumes, assumes, idealises, colours from its own rich heart the outlines and forms of things, and anticipates results with a prophetic power that sometimes induces their realisation, but more frequently clothes the distant prospect with those enchantments which Hope pictures as belonging to the future. Youth is the season of æreal castle-building—of countless projects—of boundless aspirations—of infinite possibilities. But a period of limitation at length arrives—of aims more and more positive, objects more definite, an arena more contracted, and labours more special. The man has become the class-man—the cosmopolite, or the patriot—the general lover, or an attached husband and father—the acquaintance of all, or the friend of a few—the wanderer of the clubs, or the domestic man, whom nothing can tempt from his chimney-corner on a winter's evening. Much has been gained, but evidently much has been lost. While the difficulty of blending in one individuality the advantages of both conditions is freely acknowledged to be great, we are far from holding it to be insuperable. There is possible needless waste of wealth, much extravagance of anticipation, much borrowing on the credit of the future, much excess of all kinds, on which it would be well that youth should be timely admonished. With all the regulations of experience, however, it is of equal importance, individually, and for social wellbeing, that the middle-aged and old should cultivate as far as possible youthful feelings. Let not 'the glory and the freshness of the dream' of youth depart with the dream

itself: some glimpses of the vision may surely survive in memory. 'Once more,' exclaims Byron, 'who would not be a boy?' To 'carry the feelings of childhood into the powers of manhood is,' says Coleridge, 'the prerogative of genius.' And what a prerogative it is! Yet it is not one so exclusively that all men may not share in it, each in his degree. We would warn, therefore, the man of middle age from becoming the victim of fixed habits and acquired routine, to the exclusion of new impulses, and the pleasure that constantly attends them. Every day is a new day, every hour a new hour: the world is always becoming new, and creation is renewed every moment, so that nature is still in travail with fresh generations. Nothing, if we rightly consider it, is really old—not even age itself. To insist on guiding ourselves by the prejudices of yesterday, is merely to resist the progress of growth. Judgment, in its maturity, has nothing to dread from concession to increased knowledge. Its tendency is to deliberate—to move slowly—to stand still; and it indeed needs the agitation of new ideas, interests, and opinions, to preserve it in a healthy state of life and action. An old man of our acquaintance, who as solicitously sought the instruction of new impressions, as others are anxious to reject them, declared to us that, as his understanding became more and more illuminated, he felt as if he was growing younger every day: it was, moreover, evident to all that his intellect, owing to the freedom with which he had permitted it still to operate, was constantly to the last receiving fresh development and expansion. Happy the man thus united to an aged body, who yet owns a young mind! His are at once the security of discretion and the rapture of imagination—this sobered in its tone, and that vivified—and both coexisting in beauty, like light and shade in the picture of a great master.

THE CORAL-FISHERS OF TORRE DEL GRECO.

A STORY.

I AM a man who has the rare faculty of 'walking with his eyes open.' I believe I learned it in my youth from a little story entitled 'Eyes or No Eyes.' The author's name has escaped my memory; but that matters little, since the influence of his or her writings has rested there ever since, probably influencing my character to a degree of which I am myself unconscious. After all, is not this an author's best immortality? Thus always looking beneath the surface of things, I peer into a man's face for his character; examine his general mien for his fortunes or occupation; amuse myself in the most incongruously-mingled crowd by framing little fanciful histories for each member of it; and pry into life and its curiosities something after the fashion of a geologist. At times I turn up only rugged stones, but now and then a precious jewel, thanking Heaven which sent me among the rocks and crannies of life—a moral geologist.

Following my usual fantasy—I can hardly call it a pursuit—I stood on the shore at Torre del Greco one bright morning in March, when the *tramontana** had 'crept into its cave,' and the beautiful Bay of Naples lay, all peace and sunshine, beneath the cloudless Italian sky. I was watching a little fleet of boats that seemed about to depart; they were just trying their sails, after the manner of a flock of young goings, when first dipping into their native element. I was stranger enough in the land to wonder why so many fishing-boats were making sail at once, and asked the question of a lazy sunburnt lad, half sailor half beggar, who lolled beside me.

'Sants bergine!' does not the signor know? The coral-fishery begins to-day; these are the boats; the fishermen are just coming down from Torre.'

'How gay they look!' I said, as a troop of mariners, all dressed in their best, and fluttering with ribbons, came down to the beach. Most of them were young;

* A stormy periodical wind.

many had the striking peasant-beauty which seems natural to an Italian clime. 'The coral-fishery must be a merry life,' I continued.

'It is the life of a dog!' observed the young lazzarone, stretching himself, as if exulting in his own laziness.

'Then why do those young fellows seem so merry?' 'Oh, signor, it is their first season: they do not know what is before them. I tried it once; but the man who goes two seasons to the coral-fishery is mad or a fool—that is, if he lives through the first. I had rather starve on shore than be worked to death at sea.'

I tried to get some explanation from my young acquaintance respecting the hardships of the fishery; but his disgust appeared to be so great, that I could elicit nothing, except a repetition of the fact, that it was '*la vita d'un cane*.' I thought that the life of the lazzarone himself seemed of a very canine and half-civilised character, and could hardly imagine one that was worse; so I left him, and watched the fishermen enter their boats. They were accompanied to the shore by a number of peasant women; and as I drew nearer, and looked in the faces of these mothers, sisters, betrothed wives perhaps, I found that my speculations, founded on the gay ribbons and holiday appearances, were, to say the least of them, as fictitious as such fanciful pictures generally are.

One soon begins to individualise in a crowd, choosing out those who seem most worthy to be made the foundation of some romantic superstructure. My fancy lighted on a young pair who appeared superior to the rest, certainly not in dress, but in an indescribable something of air and mien that is best expressed by the term 'interesting.' I took an interest in them accordingly; and hidden by a shore-driven boat, used my eyes, and—shall I confess it?—my ears too, with infinite pleasure. It did them no harm, poor souls! What was I to them, or they to me, save that their loving looks, their ill-suppressed tears, their lingering embraces, touched a chord in a heart which, perforce, has learned from such sympathies to still its individual throbs, and to beat only in unison with the great pulse of human nature.

'Bertina, mia cara,' whispered the young fisherman, 'it is only a summer, a short summer. What is that to the long life before us—a life spent together? The feast of San Michele will soon come, and then the fishery is over, and the fifty ducats will be gained. Think of this, Bertina!'

'Ah, Ippolite!' sobbed the girl, 'how can you talk of fifty ducats, which must seem nothing to you, though it is a great sum to me. But I have been poor all my life, while you— Oh, Ippolite! I wish—I wish you had never loved me, and then Madonna Guiditta would not have been angry, and you would not be perilling your life for the sake of fifty ducats. Go back to her now, and tell her that you will not marry me, and that I will promise to go away and never see you more.'

'You are very unkind, Bertina,' the young fisherman answered; 'but it is too late now. I thought of your doing this, so I got the money in advance, and now I am obliged to go, and I am glad of it. I shall never return to my sister again; and if you leave me, the fishes in the coral beds may take Ippolite Sacchi, for all that he cares.'

As he spoke, the girl clung around him, and stopped his words with her tearful embrace. They never seemed to see their companions, only each other, although many a compassionate eye was directed towards them as well as mine. 'God help them, poor souls!' I said to myself; 'there is trouble here, as there is all over the world, wherever love comes.' As the fishermen embarked, the crowd of lamenting women shut out from my sight Ippolite and his Bertina, so that I did not see their parting. Many of the women fell on their knees, and told their rosaries in silence; while others took handfuls of sand, which they threw after the receding boats, saying, '*Possò dare come nave degli angeli*!'—('May it

sail like a bark freighted with angels!') It was a superstition of love and piety: I could not even smile at it.

When the women turned to go home, I saw one of them still standing, as motionless as a marble statue, gazing after the boats. It was the girl Bertina. I looked at her wistfully.

'Poor thing!' murmured a voice behind me. I was almost startled at the gentleness of its tones, seeing that they came from my young lazzarone. Well, one sometimes finds a grain of gold-dust in a bed of coarse sand. There was good in the lad, with all his dirt and laziness: I began to like him.

'Why are you so sorry for that young girl?' I said. 'She is not worse off than all the other women who have sent their friends to the fishery.' This was a *ruse* of mine: it succeeded admirably.

'I wonder the signor is not ashamed to speak so unfeelingly,' said the lad, becoming energetic and angry at once. 'But it is always so with the cold-hearted *Inglese*' (English). 'Who would not be sorry for poor Bertina, when all the town knows that she ought to have married Ippolite Sacchi in peace and happiness, and gone to live at the pretty vineyard on the side of Vesuvius, if it had not been for— But I beg the signor's pardon for running on thus,' interrupted he.

Now, if there is one thing which a Neapolitan beggar likes better than lolling in the sun and eating macaroni, it is a gossip, when he can have all the talk on his own side. I knew the lad was longing to tell as much as I to hear; but with that spice of cunning which makes newsmongers and news-seekers coquet with each other, we mutually tried to deceive ourselves—he and I pretended just so much indifference as brought out the story in all its completeness. Despairing of ever conveying in English the inimitable sketch which the lazzarone gave—enriched by his energetic attitudes, his expressive patois—I will endeavour to furnish a condensation of this historiette.

Ippolite Sacchi had been brought up from the cradle by his half-sister, Madonna Guiditta, his elder by some twenty years. All the love which some hidden fate had forbidden to expend itself in other ways, was concentrated on this boy. He was her pet, her plaything, her pride. She loved him with a love 'passing the love of women.' All their father's property had been left exclusively her own, to the prejudice of little Ippolite; but his sister never married; 'because no one would have her,' my lazzarone observed. I thought, and am now sure, that he was mistaken. However, Madonna Guiditta, miser and devotee as she was, and consequently disliked by everybody, was yet almost like a mother to the young Ippolite, until he grew up, and excited her ire by falling in love!

'Look at Bertina yourself, signor,' continued my informant, 'and see if he could help it! A sweeter and better girl never lived, though she is only a poor vine-dresser. Madonna Guiditta was ashamed to call her sister, though every one else thought the shame was on the other side. The ugly old woman was so proud of her riches, and expected Ippolite to marry some one better than a poor village girl. She told him to choose between his sister and Bertina—to live and be the heir of the vineyard, or be turned out without a *danaro*. He chose Bertina, as who would not? and was turned away.'

'And did he marry her?'

'How could he, signor, when they had not a ducat between them? So he went to the coral-fishery, and poor Bertina is left to work alone, until they both get money to marry upon. Heigho! it is better to be a lazzarone, and do nothing. Will the signor give me a *danaro* for amusing him?'

'Human nature is human nature after all,' I thought; so I gave him the coin, and was turning away, when he pulled me by the sleeve.

'See, signor, there is Madonna Guiditta come to look after the boats I suppose. I wonder she is not ashamed to see her own brother, whom she pretended

to be so fond of, among the coral-fishers. Ugh! there she stands, *la donnaccione*!

It is impossible to give the full effect of this purely Italian word, as the lad used it, accompanied by a meaning shrug: it implied all that was ugly, contemptible, and abhorrent in female nature. I looked at her to whom he applied it. She was a tall, thin woman, certainly the reverse of beautiful; but yet the time might have been when the roundness of youth softened her large, strongly-marked features, and the benign influence of a happy and loving heart made them almost pleasing. We should not judge harshly of any one. I almost pitied her when I saw the expression of wild sorrow in her dark eyes, how they were strained to distinguish the distant white sails, that looked like floating sea-birds in the bay.

'She creeps along, that no one may see her: she is ashamed, and well she may,' moralised the lazzarone—'that poor Bertina there is happier than she. I wonder if they see one another?'

Apparently they did not, for Bertina sat under the shelter of a sand-hill, with her face buried in her lap, and the sister of Ippolite seemed to see nothing but the vessel that was bearing to labour and danger the youth who had been her darling for so many years.

At last the white sails disappeared, and Guiditta turned to leave the beach. Bertina also rose up, and the eyes of the two women met. The younger one was weeping bitterly; at the sight, the passing softness which had come over Madonna Guiditta was changed into anger. How dared a mean peasant girl even to weep for her brother? She cast on Bertina a look of the bitterest scorn and jealousy, and swept away, leaving the poor maiden humbled to the dust. The young vine-dresser waited until Ippolite's proud sister had passed out of sight, and then crept away, to toil and to grieve for her lover.

Many a time during the summer that I stayed at Torre del Greco, a vague interest led me to follow the steps of both Ippolite's sister and his betrothed. Very winning was the latter, with her gentle beauty, her patient toil, her faithful love, which found a brief reward when, every fortnight or three weeks, the boats put in from the fishery, and Ippolite leaped on shore for a few tender words, a few half-weeping caresses, which lightened his labour, and made him seem to suffer less from the hardships of the coral-fishery than those who had no loving aim to reach at last. Still, they were young, and love alone is happiness. My heart clung more to that lonely woman, whose only refuge was her pride. Erring as she was, I pitied Madonna Guiditta more than I did those whom she had caused to suffer—for who knew what bitterness might have drunk up the fount of love, which so rarely runs dry in a woman's heart! She had sinned; but who is it that the angels in heaven weep over—the injured righteous, or the sinner?

My little lazzarone, Pietro, met me occasionally on the sands, and presuming on the easiness of an idle man, often began to talk—chiefly about those in whom I took an interest—as his quick perception soon found out, and of which his natural cunning took advantage. Many a stray *soldo* did the young scapegrace wile out of my pockets by his stories about Madonna Guiditta and the pretty Bertina—how the father of the latter had been a young man well-to-do in the world, but had ruined himself by his extravagance—and how Guiditta's father had helped him, and would have done more for him, had he not married Bertina's mother, a low servant girl. I did not believe the half of what Pietro told me, and yet I wished it had been true. I put together the disjointed fragments, and framed a little romance—the romance of a dreamer. It half atoned for the harshness of that desolate woman, and so I cherished it, for I would ever fain believe in the best side of humanity.

The feast of San Michele is the time when all the coral boats come on shore, whether fully laden or not;

and the fishery is ended. No threats will induce the sailors to work another day after that blessed time of relief has arrived. The continued hard labour, the want of sleep, and the bad food, which are the unfailing portion of the coral-fishers, took effect in time even upon the youth and strength of Ippolite Sacchi. His bright and hopeful eye grew dim; and when, about a month before the feast of San Michele, his boat put into shore, I saw that a great change had come over him.

'It is the last voyage, indeed the last,' I heard him whisper to his betrothed, as the same evening they came down to the boat together. 'A little more patience, Bertina, dearest, and I shall have earned the money, and then we will be married. With your care, I shall be quite strong against the vine season comes; and tending the grapes will be delicious—quite like play—after working at the coral-fishery.'

'Alas, alas! that you should have to work at all, my Ippolite!' answered the girl, kissing his delicate hands, now hard and embrowned by labour. 'Oh that I had the strength of a man, that I might work for you! It breaks my heart to think that I am the cause of all this—I who would give my life to save you one care.'

I was a fool—I know I was; and yet there was something in that girl's love that made my eyes run over. I hid myself behind the hillock where they sat, and watched her as she laid his weary head on her shoulder, and parted his long damp hair: I could bear it no longer, but crept away—

'Love's pain is very sweet.'

Why is it that we envy and long for even its sufferings, rather than the desolation of its utter absence?

On the eve of San Michele, all the other boats crowded into the harbour of Torre del Greco like a swarm of white butterflies—all except the little vessel of Ippolite Sacchi. I was down on the beach, mingling with the crowd. I did not see Bertina there; for the vintage season had already begun, and the young vine-dresser could not spare an hour from labour, not even for the sake of love. I was rather glad that she was absent: it would have been a sore pain to that tender heart to witness all the happy greetings, while she herself had to endure the bitterness of suspense. At the time, no one thought anything of this temporary delay in the arrival of one boat; but as the night passed, and the feast of San Michele dawned, while the little bark was still absent, many from the town of Torre came down to the beach with fear and anxiety in their countenances. There were other anguish-riven hearts besides that of Bertina.

All that day I looked in vain for my little Mercury of good or evil tidings—Pietro the lazzarone. He had quite disappeared from his accustomed haunts. I watched the various merry groups and processions, half-festive, half-religious, which hailed the return of the coral-fishers; but in the midst of all, my mind often reverted to the poor Bertina, sorrowing unseen, perhaps alone and unpitied; and more often than even to her did my mind revert to the vineyard on the side of Vesuvius, where one more wretched still abided. I had an idea that Pietro's absence was in some sort connected with these two; and it was a positive relief to me when, at the close of the day, I saw him traversing the beach with a restless haste that contrasted strongly with his usual lounging gait.

'Good news runs fast, Pietro,' said I: 'where are you carrying yours?'

The lad turned round and made his usual salutation; but the broad stereotyped smile of a Neapolitan lazzarone contended with an expression of sorrow, which made him look comical in the midst of his evident grief. 'The signor's condescension would almost turn bad news to good,' he answered, with an attempt at his usual cajoling. But it would not do: the poor lad had a heart in his bosom beneath those paltry rage, and the tears stood in his black eyes as he added, 'Oh, signor, do not

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stop me; I am going to poor Bertina with the news about Ippolite Sacchi!

'What news? Is the boat come?'

'Alas, no, signor! But a fishing-smack has brought the news that it was seen three days ago foundering in the midst of a storm off the Barbary coast. There is little hope that poor Bertina will ever see her betrothed again.'

'And you are going to tell her so?'

'No one else will; and she may bear it best from me—for Ippolite always liked me—he was always kind, for I was an orphan like himself—and she knows I would have done anything on earth for him.'

'And where are you going to find her, Pietro?'

'At the church. She is sure to be at vespers, praying for him, poor girl. Good evening to the signor!' And Pietro scampered on, his bare brown feet hardly leaving a trace in the sands.

I could not control my own steps; insensibly they brought me to the church: I had kept Pietro in sight until he disappeared at the door. Then I felt in my very heart what was passing within; I almost heard the scream of that widowed maiden, as his terrible news met her ear. Yet I could not prevent myself from entering the church.

It was almost empty. Throughout the day many happy hearts had poured out their thankful orisons—for in Catholic countries religion is mingled with every passing event of daily life—but these had gone away: it was only mourners who came to pray and weep. Through the sombre twilight, which always reigns in foreign churches, I saw one figure kneeling—no, less kneeling than prostrate on the floor. I knew it was Bertina, and that she had heard all. Pietro was not beside her; he was advancing with an angry vehemence towards another worshipper at a little distance—a woman covered with a hood. The lazzarone touched her dress, and she drew it away, as if from contamination. But in another moment a shriek, wild as that I had expected from the patient, mute, sorrowing Bertina, disturbed the quiet of the church. Pietro had told Madonna Guiditta of her brother's fate. It struck her like a thunderbolt: she fell on the marble pavement half insensible. A century of agony and conscience-stricken remorse must have been comprised in that one moment.

When Madonna Guiditta lifted up her head, Bertina had risen from her knees. The two women looked at one another for an instant, and then Ippolite's sister opened her arms; the girl threw herself into them, and all pride, all enmity was forgotten—one common grief had united them, one all-sanctifying love for him who was gone. Ippolite's sister and his betrothed went away together; the elder mourner leaning on the arm of the younger, guided by her, and seeming to look to her with all the helplessness with which an aged mother clings to her child. The proud woman was completely shattered by the blow.

I turned homeward, moralising, after my usual habit, on what I had seen. How often it is the stern rod of affliction which strikes the rock, and the waters flow! And who shall say that the hand which deals the stroke is not a merciful one? It was so now for both those desolate ones. Yet that poor Ippolite! Well, let us not ponder too much on these things, but look to the end of all.

'What has become of Madonna Guiditta and Bertina?' I inquired of Pietro, when, after an absence of some time, I met him on the beach.

The lad broke into a broader smile than ordinary. 'Oh, they are living together in the beautiful vineyard. Madonna Guiditta is growing quite fond of her poor brother's pretty bride—the Virgin pardon her sins! But if the old wretch had come to her senses a little sooner, poor Ippolite would not be feeding the fishes off the Barbary shore, nor Bertina pining her life away, as I know she is, though she smiles and looks cheerful for the sake of her lover's sister. A fine sister indeed! no

more like Ippolite than—' a brilliant idea crossed the mind of the young beggar—'than this ragged old jacket to the beautiful new one which I could buy if the signor would only give me a few soldi.'

'At the old trade again, Pietro,' I said, trying to look angry, while a slight movement made the coins jingle in my pocket, and reminded me that the bitter equinoctial winds were just beginning to blow, and the lad's brown skin peeped out at the holes in his shadowy apology for a coat. 'It is a sin to encourage idleness,' whispered Prudence, but Compassion put her sweet lips to my ear, and murmured, 'How hard were poverty and orphanhood combined!' Somehow, Pietro got the soldi.

'So, Madonna Guiditta is really kind to the poor girl?' I pursued.

'Oh yes, signor; as kind as such an old creature can be. At first she seemed as if she could hardly bear to look at Bertina, but now she sits whole hours watching her; and I have often peeped through the vines, when they were sitting together, and seen Madonna Guiditta take Bertina's head between her two hands—ugly brown withered hands they seemed beside those soft cheeks—and look into her face, muttering to herself for minutes together. The old woman may well look too; for poor Bertina's was once the prettiest face ever seen, and the very image of her father's, who was the handsomest fellow in Naples, people said. But the Signor Inglese can take little interest in these things.'

I nodded, but did not farther detain my young informant. As I walked on, it was with a thoughtful spirit. Another leaf in the great tablet of the human heart had been unfolded before me through these unconscious revelations. They set me pondering for a long time. As we advance in life, we philosophise where we once used only to feel. I was on the boundary of the two crises, and my meditations savoured a little of both.

As the winter drew on, I began to experience the weariness of an aimless life. The subsiding of the passing interest which the little episode I relate had given me perhaps increased this feeling. My strolls about Torre seemed to have a painful uniformity, so I projected a journey up the mountain. Perhaps some vague remembrance of Bertina, and of the vineyard on Vesuvius, which seemed a very paradise to the little lazzarone, was the unconscious reason of my choosing this direction for my peregrinations. If so, the same chance led me thither; for one day, at the commencement of a sudden storm, such as are peculiar to the region, I found myself seeking shelter at a dwelling which fully answered Pietro's description.

While I speculated on this, the door opened, and I was courteously welcomed in by a voice which I knew well, though it was the first time its accents had ever been addressed to myself. I soon found myself sitting face to face with Madonna Guiditta and Bertina. Little did either know how well the stranger had read the hearts and the destiny of both. I watched them eagerly. A change had come over Ippolite's sister; the harsh lines in her face had melted away. When she looked at, or spoke to Bertina especially, there was a sweetness in her countenance that made me remember with surprise Pietro's epithet of 'donnazione.' But most of all did I marvel at the patient calmness of Bertina's face—a calmness which seemed the very sublimation of grief. Then I knew how great and holy is the love which survives even the parting of death, and through its intensity conquers even that last despair.

I was almost glad that the storm continued, so that I had an excuse for remaining; but I was not exactly pleased when the shaggy head of Pietro the lazzarone peeped in at the door. Madonna Guiditta turned away with an expression of pain, but Bertina went and spoke to the lad with her own kind tones. Pietro seemed unusually restless, though a continual succession of furtive smiles appeared creeping about his mouth. At last he came close to Bertina, and whispered something that made her start and turn pale.

'What is it? Oh, mother of Mercy! what is it?' she uttered tremulously.

The lad's eyes wandered uneasily towards the door. 'Don't be frightened, Madona Bertina; it is nothing—only the boat—the boat: I can't keep it any longer!' cried the boy, bursting into a caper of frantic joy, that nearly overthrew the table and myself too. 'Ippolite is come back!'

He was indeed! for the next instant he darted into the room, and snatched to his arms—ah, the first embrace was not the sister's, but the beloved Bertina's! Even then a pang seemed to shoot through Guiditta's heart, since, when Ippolite left his betrothed to fall on the neck of his sister, she only kissed his brow, said softly, 'Thank God,' and glided out of their presence. The happy ones never thought of this—how could they know it!

A short time after, Madona Guiditta returned. Bertina and Ippolite looked anxiously towards her, and the girl half withdrew herself from the loving arm of her betrothed. But there was no cause for doubt in that serene, affectionate, though half-mournful face.

'Bertina, the Virgin has heard our prayers,' she said. 'My brother, welcome home! Forget all the past, as I do. Ippolite, bring to me my sister!'

During that silent embrace I and Pietro crept out of the room. We had no business there.

I do not think I shall ever see Torre del Greco again, though I shall carry with me all my life a pleasant memory of the summer I spent there. But it is very unlikely that I shall ever be allowed to forget the place, since I have an active and faithful Italian servant, who has followed me half over Europe, and who keeps perpetually reminding me of the beauty of a particular vineyard on Mount Vesuvius. He never urges me to go there, except by picturing the happiness my presence would give.

'And the signor always likes to please other people rather than himself,' the fellow adds sometimes.

Sly Pietro! I should not wonder if you had your own way after all.

THE LAW OF RIOTS.

It used to be said that the people had nothing to do with the laws but to obey them; but even if this were true, one would think that the people would have some curiosity to know what the laws really are which it is their duty to obey. The law, however, in this country, as regards the masses of the population, is a sealed book, committed to the charge of the lawyers; and to them all without the pale of the profession look for its interpretation. Offences are daily committed, of which the perpetrators know not even the name, far less the penalty; and we constantly read in the newspapers, and think it a capital joke, that a certain offender—to his great astonishment—was 'locked up!'

Something of this, no doubt, is owing to the equivocal nature of the laws themselves, which appear to be expressly constructed to serve as a bone of contention for the lawyers; and something, likewise, to their prodigious number, which would demand the exclusive study of many years—and then, for the most part, elude the inquirer. But still there are circumstances of life, circumstances of constant recurrence, upon which it would be as easy as it would be advantageous to know the true bearing of the law; and to this extent, at least, it is not too much to expect that men anxious both to walk in safety themselves, and discharge their active duty as citizens of the commonwealth, would devote a small share of their attention. In this idea, various cheap works have been printed of late years, explaining the law of debtor and creditor, landlord and tenant, and so on; but we have now one before us on a subject

still more urgent at the present moment—the LAW OF RIOTS.*

What is a riot? Mr Wise, collating the old standard authorities, and the suggestions of the Criminal Law Commissioners, gives this definition:—'A riot is where three or more persons are assembled together without the authority of the law, and engaged in the actual execution of a joint design of a private nature, with violence, and to the terror of the people.' The word 'private' here should more strictly be *local*, and it is used to distinguish the offence from high treason; but at all events, it is clear that three persons may commit a riot as completely as three thousand. Fewer cannot do so, any more than one person can be guilty of conspiracy.

As for the *personnel* of the riot, it may consist of men, women, or infants. Infants at common law are under fourteen: above that age, they are punishable as persons of full years, while under it the penalty depends upon the opinions of the jury as to the extent of their knowledge that they were doing wrong. Women being held to be rioters as well as men, are punishable in their own persons; and husbands may take the flattering unction to their souls, which is offered to them with becoming gravity by the text-books, that they are not to be flogged for their wives' misconduct.

The object of the riot is of no manner of consequence, the purpose of the law being simply to prevent violence and tumult, under whatever pretence. If three or more persons, for instance, indignant at a manifestly illegal enclosure, combine to destroy it, they are rioters if they do so in the terms of the definition we have given. The indictment charges no specific purpose: it is the illegal combination, even for an illegal object, which constitutes the riot. An *accidental* affray, however violent and terrifying, is no riot; although a lawfully-assembled meeting may become riotous, if they proceed to execute their purpose with violence.

A conspiracy, an unlawful assembly, and a riot, are three distinct offences. The first may exist in its purpose alone—that of effecting any object, legal or illegal, by unlawful means; the second may likewise be without aggressive acts, only *threatening* danger to the peace of the neighbourhood; while a riot is constituted by the offenders being in the actual and violent execution of their project. Of these three, the 'unlawful assembly' would seem to be the grand difficulty. We can tell at once whether the means used by conspirators are legal or otherwise; and about the nature of a riot there can be no doubt: but it is a very delicate task to interfere with the free expression of public opinion, by declaring that a certain meeting of the people is likely to prove dangerous to the peace. Still, there is generally room for a very tolerable presumption. If the meeting expresses, beyond any doubt, the will of the whole kingdom, the question of illegality is at an end; but if, on the other hand, it is merely the voice of a certain portion of the people, who endeavour, by the intimidation of numbers, or physical force, to overawe the authorities, it should unquestionably be put down as unlawful. In order to determine its character, we must weigh all the circumstances of the case; for we are by no means to be governed by the opinion of timid or excitable persons. We must consider the apparent *animus* of the leaders, as disclosed in their speeches, the time, place, and manner of the meeting, and the state of the public

* The Law Relating to Riots and Unlawful Assemblies, &c. By Edward Wise, Esq. London; Shaw and Sons, Fetter Lane.

mind at the time—whether temperate and rational, or likely to be moved by the pressure of circumstances to extravagance, recklessness, and revolt. A careful consideration of these things by firm and reasoning men, will leave little place for error.

It is said, in our author's definition, that a riot must occasion 'terror to the people;' but the people may be represented by one man. If a single one of the Queen's subjects is terrified, that is enough; although the averment as to terror—in *terrorem populi*—is essential to the validity of the indictment. In an otherwise perfectly clear case, where this allegation was omitted, it was held that the defendants could not be convicted of riot. It is unnecessary, however, that the terror should be realised, for personal violence is not an indispensable ingredient in a riot.

Who is guilty of riot? This, it will presently be seen, is a most important question, and must be answered as distinctly as possible. If the meeting be a legal one, and a riot ensues, those only who actually take part in the riot are guilty; but if the meeting be in itself for an unlawful purpose, all attending it countenance the illegal design. Knowing the meeting to be illegal, prudent persons ought either to absent themselves, or assist in dispersing it. If they do neither, they are at least an obstruction to the peace-officers, and so far accomplices of the rioters. It is vain for a member of that illegal meeting to say, that although he approved of the purpose, he did not approve of the violence; for the act of a single individual in such circumstances is construed to be the act of all, and the military, when it is proper for them to act, would be justified in firing upon the whole mob. A mob riotously burned a building; but one of the persons apprehended was proved not to have been present at the commencement of the fire, and it was therefore argued that he could not be guilty as principal. The offence, however, was not destroying the house by fire, but riotously assembling; and while the riot continued, demolishing the house; and the prisoner was found guilty, and transported for twenty-one years. The punishment for simple riots is fine and imprisonment, with or without hard labour; and for aggravated riots, in which houses or other property are destroyed, transportation for life, or for any term not less than seven years, or imprisonment for any time not exceeding three years; and solitary imprisonment, not exceeding one month at any one time, or three months in any one year, may also be inflicted.

The enactments familiarly called the Riot Act were made at the time when the newly-seated House of Hanover was distracted by popular tumults, and they are of course distinguished by much severity. The first section declares that all persons, to the number of twelve or more, who continue riotously assembled for one hour after proclamation is made (termed reading the Riot Act), shall be adjudged felons, and suffer death, as in case of felony, without benefit of clergy. The punishment has since then, as we have seen, been modified,* but the other provisions are strictly enforced. When the proclamation is to be made, says the act, 'the justice of the peace, or other person authorised by this act to make the said proclamation, shall, among the said rioters, or as near to them as he can safely come, with a loud voice command, or cause to be commanded, silence to be while proclamation is making; and after that, shall openly, and with loud voice, make, or cause to be made, proclamation in these or words like in effect:—“Our Sovereign Lord the King [Queen] chargeeth and commandeth all persons, being assembled, immediately to disperse themselves, and peaceably to depart to their habitations, or to their lawful business, upon the pains contained in the act made in the first year of King George, for preventing tumults and riotous

assemblies. God save the King [Queen].” And every such justice and justices of the peace,’ the act continues, ‘sheriff, under-sheriff, mayor, bailiff, and other head officer aforesaid, within the limits of their respective jurisdictions, are hereby authorised, empowered, and required, on notice or knowledge of any such unlawful, riotous, and tumultuous assembly, to resort to the place where such unlawful, riotous, and tumultuous assembly shall be, of persons to the number of twelve or more, and there to make, or cause to be made, proclamation in manner aforesaid.’ So strictly are these formalities of the proclamation observed, that in a case where ‘God save the King’ (now ‘the Queen’) was omitted, and in another where the additional words ‘of the reign of’ after ‘the first years’ were introduced, it was decided that the indictment must fail.

It is further enacted that any opposition to the reading of the proclamation—opposing, obstructing, letting, hindering, or hurting’ the persons reading or attempting to read—shall be considered as grave an offence as the remaining for an hour after it is read; and likewise that if the reading is prevented by such hindrances, those of the rioters who are aware of the fact shall be considered as guilty as if the proclamation had really been made. We frequently hear of the Riot Act being read more than once; but this is merely in order that there shall be no doubt as to the fact, not to give the offenders more time, as is commonly supposed, for the computation of the hour of grace is made from the first reading. This statute, however, is merely cumulative. The magistrates remain possessed of all their powers for the suppression of crime; and rioters who think that the proclamation gives them the right to do as they please for an hour without interference, will find themselves prodigiously mistaken. The act extends to Scotland.

The rights and duties of private individuals during a riot are perfectly clear and simple, although the great body of the people, we apprehend, know very little about them. ‘By the common law,’ says Lord Chief-Justice Tindal, ‘every private person may lawfully endeavour of his own authority, and without any warrant or sanction of the magistrate, to suppress a riot by every means in his power. He may disperse, or assist in dispersing, those who are assembled; he may stay those who are engaged in it from executing their purpose; he may stop and prevent others whom he shall see coming up from joining the rest; and not only has he the authority, but it is his bounden duty, as a good subject of the king, to perform this to the utmost of his ability. If the riot be general and dangerous, he may arm himself against the evil doers to keep the peace.’ But although the law not only permits, but enjoins this interference, it is considered more ‘discreet’ for private persons to range themselves on the side of the authorities; yet ‘if the occasion demands immediate action, and no opportunity is given for procuring the advice or sanction of the magistrate, it is the duty of every subject to act for himself, and upon his own responsibility, in suppressing a riotous and tumultuous assembly; and he may be assured, that whatever is honestly done by him in the execution of that object, will be supported and justified by the common law.’

It follows from the right to quell such disturbances by force, that rioters are held criminally liable for the consequences of their resistance. If a life is sacrificed by such resistance, this is murder; and the deed of one person, as we have already said, being chargeable upon all his aiders and abettors, the whole mob is guilty of the capital felony. But private persons have not only the right to interfere—it is their duty to assist the authorities when called upon. Obedience is compulsory, under pain of fine and imprisonment; the refusal, like the riot itself, being a misdemeanour.

When a riot is apprehended, too serious to be dealt with by the ordinary police force, special constables are summoned from the inhabitants of the district, and ‘sworn in.’ The oath is as follows:—‘I, A. B., do swear

* In a conviction under the Riot Act, the minimum of transportation is not seven years, as in ordinary cases of riot, but fifteen.

that I will well and truly serve our Sovereign Lord the King [Queen] in the office of special constable for the parish [or township] of —, without favour or affection, malice or ill-will; and that I will, to the best of my power, cause the peace to be kept and preserved, and prevent all offences against the persons and properties of his majesty's subjects; and that while I continue to hold the said office, I will, to the best of my skill and knowledge, discharge all the duties thereof faithfully according to law—So help me God.' The persons summoned to take this oath must obey, under a penalty not exceeding £5. We have no room to describe the rights and duties of special constables, but they are identical with those of common law constables. They receive no salaries, but may be ordered allowances out of the county rate. 'Such,' says Mr Wise, in concluding the chapter he has devoted to them, 'are the provisions made by law for the preservation of peace and order by the civic guard, as they may be termed—a guard including within it all classes, binding all with equal rights, imposing upon all equal duties, because all have the deepest interest in protecting each other. So will they best protect themselves, and hand down that freedom to their posterity which their ancestors have acquired, of which the imperfection can be corrected by earnest inquiry and manly energy, but not by wild violence, nor by each class seeking to attribute all their own difficulties to the faults of others, and not caring to think how far they may have been the architects of their own misfortunes.'

The rights and duties of the military in cases of riot appear to be very generally misapprehended. 'The soldier,' says a high authority, 'is still a citizen, lying under the same obligation, and invested with the same authority to preserve the peace of the king as any other subject. If the one is bound to attend the call of the civil magistrate, so also is the soldier; if the one may interfere for that purpose when the occasion demands it, without the requisition of the magistrate, so may the other too; if the one may employ arms for that purpose, where arms are necessary, the soldier may do the same.' The military, in fact, are called out simply as that class of citizens whose services are likely to prove most efficient.

With the magistrate of course rests the most important duty of all; for in addition to his own powers as an individual, he has authority over all other individuals. He may either give firearms to those who assist him, or summon the assistance and advice of the military. He reads the Riot Act. But it is no part of his duty to marshal and lead the constables, or ride with the military. It is his province, in short, to give orders, not to assist personally in their execution.

In conclusion, we have only to advert to the recourse which individuals who suffer in their property from a riot, have against the community of the district to which they belong. In order to establish this recourse, the building or other fixed property must have been either entirely destroyed, or rendered unfit for its customary use, or at least it must have been the *intent* of the rioters so to demolish it. The damages recoverable are the value of the house, or other property, and also of the fixtures, furniture, or goods that may have been destroyed at the same time. 'The object of this,' to use the words of Lord Chief-Justice Denman, 'is to make it the interest of all the inhabitants of a district to exert themselves in the timely suppression of riotous assemblies, and in the prevention of the serious loss that such assemblies may cause to the particular individuals who are the first victims of their lawless outrage; and not to stand quietly by, either through fear or indifference, while the property of a neighbour is destroyed, and the rioters acquire that increase of strength which always accompanies unrestrained violence, until the evil extends itself, and in the end falls upon the heads of those by whose forbearance the strength and power of mischief were permitted to increase.'

There are few of our readers who will not perceive

the utility and interest of the little volume which has afforded most of the materials for this sketch; but we can say besides, that, independently of the information it affords, it is written with great tact, and even taste; and although professionally careful in its references and other details, is perfectly well adapted for popular perusal.

HOSPITAL FOR INFANT CRÉTINS.

The unfortunate beings whose destiny forms the subject of this memoir are well known to travellers in Switzerland, whose enjoyment of the beauties of that glorious country has often been clouded by the sight of what has hitherto been considered as incurable suffering. The benevolent have sighed over their degradation, the political economist has calculated the dead weight that they must prove on so poor a population, and the Christian has mourned over immortal souls enveloped, as it were, in a chrysalis, which will open only when the ceremonies of the tomb shall burst.

They have existed for centuries—indeed no one in the country knows the time when there were no crétins in the land; they have existed as an unavoidable evil, and no means had hitherto been sought to turn away so great an affliction or modify its intensity, till one of those noble and unselfish characters which the world sees from time to time stand forth from the crowd, rose up to help them, giving his powers of mind and energies of heart to the subject, and devoting himself entirely to the cure or amelioration of *infant crétins*.

It is now seven years since the simple-hearted and benevolent Dr Guggenbühl founded his asylum on the heights of the Abendberg, a spot which poets and painters might choose as the scene of their reveries, and which is singularly well calculated to supply the wants of its inmates for their physical and intellectual development. A purer air cannot exist, nor a scene of more exquisite beauty. It is an open space three thousand five hundred feet above the level of the sea, between the lakes of Thun and Brienz, and overhanging the towns of Interlaken and Unterseen; below, the mountain is thickly covered by a fine forest, and opposite rises the giant form of the glorious Jungfrau, a sovereign among the mighty Alps. The buildings which form the hospice are extremely modest, but convenient; and on that height is to be found nearly all the necessities of daily life. The produce of the kitchen-garden is, in general, very abundant; and Indian corn, and even other corn, grow well there. The inmates bake their own bread, and sometimes kill their own meat. Poultry and goats complete their stock.

Almost always the winter, which is severe in the valley, passes gently over the heights. Two unfailling springs of water supply them amply with baths, as well as what is wanted for household use.

In this retirement, with all the ardour with which discoveries inspire genius, and the patience and affection with which the love of his fellow-creatures has filled his heart, the young and scientific physician we have named has resolved on spending his life, surrounded by objects for the greater part of a disgusting nature, and without companions of like education with himself, except in the valley below. Before this living example of Christian love we bow with feelings of unmingled veneration; for when he began his work, there were no admiring crowds to fan enthusiasm; there was everything to fear from want of funds; and little co-operation to hope for from the medical practitioners of the country. There were deep-rooted prejudices to overcome: money never is abundant in Switzerland, and one canton takes but little interest in the institutions of another.

Once inspired with this generous determination, and prompted by scientific knowledge, Dr Guggenbühl gave himself up to the study of the probable causes of this mysterious disorder, and of the probable means of curing it. For this, he availed himself of the researches and opinions of others, and also of what is always a sure guide

—the hereditary wisdom of the places where crétinism is most prevalent.

He found that from the celebrated De Saussure, down to the living physicians of Switzerland, all agreed that the disorder never showed itself *above* the height of four thousand feet on the mountains; and that children attacked by it, and immediately carried up into a purer and keener air, were sure to recover, and even to be more lively and forward on returning again into the valleys, at the approach of winter, than the other children of those parts; but also, they easily fall back again into the same state as before, and require more than one summer spent upon the heights to free them entirely from all symptoms of the disorder.

He found also that those who were rich enough sent their offspring away while infants to healthier spots; and that the inhabitants of Sion, in the Valais, who possess *maisons*, or pastures, and chalets on the heights, send their wives up to them to be delivered there, with the conviction that the infants so born are freer from attacks of crétinism than those born in the valleys. All these undoubted facts led him to found his establishment at the height so indicated, and in the healthiest spot possible, where the little crétins can spend the winter as well as the summer in comfort, and be not only under the care of nurses and physicians, but also under that of schoolmasters and mistresses, and so receive bodily care and intellectual instruction at the same time.

He began in the spirit of Franke, whose example he so often alludes to; and relying on the fulness of Christian benevolence to realise what he felt sure of executing, were the means obtained. His difficulties were great, and the sympathy he met with at first amongst his own countrymen next to nothing; but we cannot but regard the neighbourhood of Interlaken, which in summer is filled with tourists from every country, as a most providential circumstance for the success of the rising hospital.

The first news that we received of its existence was from the graphic pen of one of the daughters of the Russian ambassador, the Baron de Krudener, then at Interlaken, who had accompanied the Princess Rephin on a visit to it, and who described its very infancy with enthusiasm. Some time after, the king of Wurtemberg, while resident at Interlaken, inspected it himself, and gave substantial marks of his interest; and the scientific of all countries, as well as the philanthropic and the curious, who visit the Bernese Oberland, have spread a knowledge of its foundation throughout the continent more rapidly than otherwise could ever have been hoped for.

Nevertheless, ill-natured doubts were thrown on the facts which Dr Guggenbühl published, and ridicule even was not wanting to dishearten and distress him. Some generous-minded persons were, however, to be found who held out a helping hand, and assisted him to put his benevolent designs in execution.

As soon as the establishment was opened, the government of Berne granted it a sum of six hundred livres; and those of Fribourg, the Valais, and St Gall, sent crétin children to be maintained there at their expense. The king of Prussia likewise took notice of it, and ordered two children to be placed there from the principality of Neufchatel; the Countess of Hahn Hahn, who had taken her daughter to the Abendberg, in the vain hope of effecting her cure (but her age, sixteen, rendered it impossible), with a most natural sympathy for others similarly afflicted, requested that a Valaisian child should be always maintained there at her expense, to be called *her child*, one succeeding the other when cured, and for which she gave the necessary funds.

Associations began then to be formed in many of the capitals of Europe, beginning with Hamburg, Amsterdam, &c.; and finally, Dr Troxler, professor at Berne, gave the establishment the sanction of his powerful name. Subscriptions were made which have enabled Dr Guggenbühl to extend his operations wider than he possibly could have done; and last year he ventured to add a second building to the original one, that the children might be enabled to continue their

gymnastic exercises through the winter, whereas before, they could only be performed in the open air. He has also added two or three rooms in the new building, which can be occupied by parents of the children, who may wish to remain with them for a longer or a shorter time; for amongst the sick, whom Dr Guggenbühl's rising reputation has brought to the Abendberg, are some of high rank, who, though not precisely crétins, were yet of that class of patients in whom the brain appears not to have been properly developed, and to these he has been of very great use. When we visited him in 1846, and fully enjoyed the sight of so much natural and moral beauty, we saw two titled little girls who had been taken to him from Germany, to die, as it was thought, but who have, on the contrary, lived and prospered under his roof.

Of the number of children hitherto admitted, one-third have been sent back to their families quite cured, others more or less ameliorated, and some few have died. In general, Dr Guggenbühl complains that they are not left long enough, and assures that a long space of time and continued care are absolutely necessary to insure perfect success; not less, he reckons, than three years in general. Some have appeared to baffle every effort, their bodies presenting an ensemble of deformity, their tongues obtruding from their mouths, their heads hanging down, their skin wrinkled like a person of eighty, their limbs dwindled to nothing, their bodies enormous, and neither sign of intelligence nor any articulate sound to be drawn from them. Even these, by his kind and judicious treatment, by unwearied care, by baths, by aromatic frictions, by electricity, by goats' milk, by exposure to the air and sun, by every means of infant development, playing, talking, laughing, by lessons with pictures, and by singing—even these have acquired the use of their limbs, the power of speech, the faculty of learning, and have, after a long stay on the Abendberg, been sent back as well as, and even more forward in most branches of instruction, than the generality of children of their age. Their progress is never uniform or regular, but always by fits and starts, and all at once, as if a cell were opened in their brain, or a veil withdrawn from their understanding, and that, too, when least expected. Parents and schoolmasters might learn many a useful lesson on that alpine height, and find data which would save more than one dunce from the rod, and teach the master that he is far more to blame than the scholar.

His great principle is to strengthen the body before he attempts to develop the mind. He even goes so far as to say, that to venture on the second before the first is accomplished, is productive of the most disastrous consequences; and were his warning voice but listened to, how many victims of precocity, how many little wonders, who minister to parental self-love for a time, and then sink into mediocrity afterwards, might be saved from subsequent suffering and nervous irritability!

Dr Guggenbühl divides crétinism into several different species:—1st, Atrophy, in which the spinal marrow has suffered mostly, and the extremities are nearly paralysed: 2d, Rachitis, where the bones have become soft and spongy, and out of proportion: 3d, Hydrocephalus; the disorder being occasioned by water formed in the cells of the skull, which ought to be occupied by the brain: 4th, Inborn, of which the germ is in the infant at its birth, and which presents any or all of the foregoing principles, and varies in intensity, from the slightly affected, down to the mass of animal matter which lies where it is placed, and can neither move nor speak. In this class are to be remarked those who have imperfect bodily growth, and the head out of proportion to the body; and also those who do not speak, yet are not deaf, but who have great difficulty in articulating, and are too lazy to attempt it.

We might give some striking extracts from the German report published by Dr Guggenbühl in 1846, illustrative of each of these forms of crétinism; but perhaps the following case of the first-mentioned form of crétinism (atrophy) will be considered sufficient in a non-professional journal like this:—

'L—, a little girl of six months old, was brought to us. Her mother is strong and healthy, but her father

weak and scrofulous. Till she was four months old she was in good health, but weaker than children of that age generally. A violent cold was the beginning of her illness; and when brought to our house, her appearance was so wretched, as to procure her the name of the *little worm*, from the Princess-Royal Henrietta of Wurtemberg, during her visit to us; and truly was she so named, for she was frightful to look upon. Her body was more like a skeleton covered with skin than anything else, and that skin was cold and wrinkled. All her muscles were immovable, and the extremities of her body like miniature hands and feet. Her face was deadly white, her forehead and cheeks wrinkled like an old person's, while her black and piercing eyes had a singularly knowing look. She slept ill, her pulse was feeble, and she had no natural heat. She came to us in July; the weather was beautiful, and the keenness of our mountain air, the uninterrupted sunshine of our unclouded sky, the electricity which predominates in the atmosphere, all which have so great an influence on our invalids, were furthered by strict regimen and constant care. This delicate little creature, who so soon after her birth had begun to lose all resemblance to a human being, and that so rapidly, now made as rapid strides towards recovery. In three months' time the deformities of her person began to disappear, her skin recovered its natural warmth, the wrinkles vanished, and her face grew young again, with the hue and the charm of infancy; and at the same time her smile, and the manner in which she took notice of those around her, showed that the faculties of her mind were awakening also. In the space of twelve months, she had lost the appearance of a little doll, and had regained that of children of her own age—proof sufficient of the efficacy of proper treatment begun without loss of time, and of the disorder being more efficaciously treated in earliest infancy than at a later period. It is now eighteen months since she left us, and we have had the happiness of learning from the Pastor Bitzius of Lutzelsrück, so well known as a popular writer, in whose parish she is, that she continues in perfect health, and can talk and express herself well.*

Dr Guggenbühl makes a wide distinction between crétinism and idiotism, and after illustrating his ideas on the subject by the description of two brothers who are in his institution—the one crétin, the other idiot—he proceeds thus:—

'Crétinism shows itself sometimes in the physical development, and sometimes in the intellectual, and sometimes in both, and to about the same degree. It is always accompanied by some great defect in the constitution; while the intellect is, nevertheless, capable of being acted upon.

'Idiotism, on the contrary, is often found in a beautiful, well-proportioned body. It is occasioned, without any exception, by a fault in the formation of the brain—sometimes too large—or an organisation of it which excludes the possibility of any but a very slight degree of cultivation.

'Anatomical researches on the bodies of crétins have shown that the seat of the disorder is almost always in the brain. Sometimes its substance differs from that of healthy subjects by being too hard or too little, sometimes it is watery, and sometimes its fibres are flat and small, as in animals. Yet a cause still hidden from us, either before or after birth, hinders the proper development of the brain and of the spinal marrow, both so essentially necessary to the growth and the progress of the child.

'Crétinism is also closely allied to scrofula: the symptoms of the latter being often, if not always, found in crétins, and the same remedies being generally good for both. (Goitre, also, often accompany or precede it, and are sometimes enormous in old crétins.) Scrofula is frequent in the valleys, very fatal, and its effects dreadful, even where it does not kill.*

Such, then, is crétinism—a disorder which is sometimes brought into the world by the unfortunate child at its birth, and which in that case has a stronger hold over the constitution than when it attacks it at a later period;

but which the oftentimes shows itself in the first few weeks, or months, or years of its existence: seldom or ever after the age of seven years; and if met by a change of air and diet, by strengthening and exciting remedies, by action on the nerves, the bones, and the muscles, can be stopped short, and finally cured if taken in time after the moment when it first manifests itself, and if the treatment is continued long enough; and which can almost always be modified: thus differing entirely from idiocy, which is incurable and unmodifiable. Crétins at the highest point of the disorder never live longer than twenty-five years, and pass, as it were, at once from childhood to old age in their appearance.

They are, even in that extreme state of disgusting helplessness, the objects of tenderness and superstitious reverence in their families; according to the beneficent dispensations of a merciful God, who never permits a want in the human race without implanting a feeling in the human heart which is to lead men to minister unto it. Their heads are almost invariably larger than those of other men, and offer some singular and defective forms, through which one feature runs without exception—the depression of the forehead. Unfortunately, those prejudices which exist everywhere amongst the poor, have hitherto greatly hindered all anatomical researches in crétins, and rendered the study of the causes of crétinism so vague and unsatisfactory.

We will now turn to the remedies which Dr Guggenbühl has employed with the greatest success, and which he recommends to the notice and use of the scientific world.

They are, in general, the same, with little variation; and consist in electric shocks on the head and on the feet, given during sleep or in the bath, where generally the little patients pronounce their first distinct words; of aromatic frictions on the back, with baths of the same; of preparations of steel, bark; of the waters of Wiedegg, which are in the neighbourhood; of cod-liver oil; of iodine; of juglam regia; of a diet composed of goats' milk, which is peculiarly aromatic on the mountains; of meat, some few vegetables, with the entire exclusion of potatoes; but above all, and the most important, is continual exposure to the air and sunshine—those who cannot walk being laid out on the grass to inhale the wholesome breezes of that high, pure air; cold baths they cannot bear. Gymnastic exercises, which require the daily use of every muscle, are also very important, and excite the children to emulation in their feats; whilst the exercise of the faculties of the mind are equally carried on in mental gymnastics, according to the powers of each little scholar. Music has been found to be a powerful aid, soothing, interesting, and refining; and we can bear witness ourselves to the thrilling effect of the voices of the happy little group, who sang to us in their infantine manner the praises of their God. Few persons, we think, could have restrained their tears while listening to that infant choir, and reflecting that but for the Christian love which has watched over them, their voices might still have uttered nothing but groans, and their souls remained ignorant of God their Maker.

Let us now turn to the difficult question—what are the causes of crétinism; and set forth the various suppositions which have been given down to the present day.

From all the observations made by Dr Guggenbühl himself, and collected by him from others, from those also published by the different societies which have examined into it, there seems to remain no doubt that it arises from local causes affecting the state of the atmosphere in which the children are born or live. That it is necessarily hereditary, does not appear; for children of parents half crétin, or with some signs of the disease, often escape; whereas very lively and healthy persons often have crétin children, when living in a close, steamy air, in valleys where there is not a thorough renewing of

* Messrs Schullin and Buzorini have shown by their experiments that the human lungs absorb in the mountain air a much greater quantity of oxygen than in the plain; for which reason the nervous system is more active, animal heat is stronger, and the nourishment given to the body more abundant.

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the air, or where stagnant vapours remain on the sides of the hills, by the waters coming down from the heights, and being held in by a ledge of rocks or a belt of trees. We must add also the want of cleanliness and fresh air in the habitations, which are but too often devoid of a sufficient number of windows, and which are generally ornamented in front by a large dunghill, surrounded by a pool of infectious water, from which emanations exhale which must necessarily form a part of the atmosphere of the interior of the dwellings. Want of cleanliness in their persons also—the use of fresh water being no part of their education; and lastly, the miserable food that the peasants in general live upon, consisting of salt meat at times, black bread, hard cheese, and potatoes.

What seems to justify this theory is, that along with the advancement of civilisation (the consequence of long peace), of much travelling, of money flowing into places which formerly were never visited by strangers; in consequence also of the progress made in comfort in the houses, of cleanliness in particular (partially introduced), of drainage, of better roads, &c. it is certain that the very most disgusting form of crétinism has nearly disappeared. Those unfortunate beings, who could neither move, speak, nor show any sign of humanity, except its most degraded form, are scarcely now to be met with. Such were those frightful objects which the French soldiers fired at on their first entrance into Switzerland, not from cruelty, but from the horror with which they inspired them. The inhabitants have also at the same time become more active, laborious, and sober by their intercourse with other countries;* and the great facilities of land and water carriage have introduced the produce of the colonies, and substituted a much more wholesome species of food than the indigestible cheeses, curds, salt pork, and greasy bacon, which before constituted their only nourishment.

Formerly, also, crétins but a step removed from the state we have described were unfortunately permitted by the authorities to intermarry, and thus became the parents of wretches yet more unhappy than themselves. Now, marriages amongst near relations, especially where there is any tendency to disorder, are much discouraged, as being fatal to the health of their children. We may therefore hope that, if no great pressure of misery should fall on the inhabitants of the Alpine valleys, every succeeding year may bring amongst them some of those habits which are the best preventatives of scrofula, goitre, and crétinism.

But to return to the history of the Abendberg. There have been founded two other hospices in imitation of it—the one in Wurtemberg, by a few Christian friends associated together, and which is placed under the direction of Mr Röschi; the other in Saxony, formed by the unwearied efforts of Dr Carus, physician to the king. In Austria, researches are making, under the superintendence of the Baron de Funchtersleben, but no establishment has yet been made; and through the mountains of Caucasus inquiries are going on by the great Russian oculist, Piragoff, whose name is so well known to science. The king of Sardinia also has taken up the subject with royal munificence, and ordered an investigation of every parish throughout his dominions, which has been now at work for many months, and the report of which is expected to be published speedily.

Dr Guggenbühl's second report, as yet only published in German, is accompanied by a very large number of letters of affection and encouragement, addressed to him from all parts of the continent by men of science, learning, philanthropy, and Christian principle, many of whom have visited the Abendberg, and give their witness to its success. They are in some instances accompanied by the diplomas of different learned societies.

* It is a fact that since the opening of the route into Italy by the Simplon, the number of such wretched beings has much diminished all through the Valais. Only since then the banking up of the Rhone has taken place, and is still prosecuted by the authorities of the canton, by which the marshes, which formerly were under water on each side of the river, are drained, and formed into a fertile and salubrious country.

It is now time to close our humble tribute to the beauty and the importance of Dr Guggenbühl's bold undertaking in a medical, a scientific, a philanthropic, a political, and, above all, in a Christian point of view; and we can fearlessly call on all those in our own happy land, where crétinism and goitres are unknown, to whom the present and future welfare of mankind is dear, to come forward with the abundant riches with which prosperity and commerce have blessed us, so different from the scanty resources of poor revolutionised Switzerland, and help one of the noblest and the most unselfish enterprises that the age can boast of.

Let not his confidence in the sympathy and the assistance of the wise and the good of every country be disappointed, but let those who are unscathed by such afflictions build *Acra* an altar of thanksgiving to God!

THE PAINTER OF CORK.

In a carpenter's workshop adjoining a small house situated in a suburb of the city of Cork, a lad of fourteen was standing one day about sixty years ago. He was tall for his age, and slightly made, with handsome features and bright quick-glancing eyes, that seemed to turn in scorn from the instruments of homely industry that surrounded him, and to fix with a gaze of longing love on the waving branches of a fine old elm-tree, that chequered with their greenness the laughing blue of a summer sky. He stood lost in contemplation, till his reverie was broken by a rough voice behind him.

'What, Nat! idling as usual, and staring out of the window instead of finishing the table for Mr Wilson. You know it must go home to-morrow, and it is not half made.'

The boy sighed deeply, and without replying, took up a piece of wood and a chisel which were lying upon the ground, and walked slowly towards the working bench. The person who addressed him was his father, an honest, hard-working mechanic, who, after watching for a while his son's listless resumption of his task, sighed in his turn, and said—'Well, Nat, if you don't wear out many tools by hard work, at least you don't spare the chalk. I'm afraid all the furniture you have made, or ever will make, won't pay me for all the lumps of it you use in scrawling on the walls and timber. You're now no longer a child; and tell me, in the name of common sense, how do you ever expect to earn a livelihood by wasting your time in such folly?' The boy cast a mournful glance round the walls of the workshop, which were flourished over with designs of figures and landscapes. Though drawn with common chalk on the stained plaster, they displayed a freedom of touch and beauty of expression quite marvellous for an artist so young and so untaught. Every picturesque form of inanimate nature or grotesque living figure that met the eye of Nathaniel Grogan, was immediately treasured in his mind, and his hand proceeded to trace it visibly with the sole rude materials within his reach, impelled by an impulse of genius as irresistible as that which filled the birks and braes of Scotland with the untutored and undying melodies of Burns. The youth we speak of is still remembered in his native land as an artist of no common order. Many exquisite engravings and original paintings remain to attest his skill. Had he lived under more favourable circumstances, he might have achieved a European reputation; as it is, we are still proud to class him among the gifted artists whom our city has produced. Some passages in his life deserve to be noticed, and with these we will proceed.

The boy loved his parents, and yet he was thoroughly unhappy: he felt wild longings and aspirations that carried his thoughts far beyond his father's workshop, even while he was chained to unsuitable labour. He was wont to despatch his daily task as speedily as pos-

* A large number of the children admitted are very poor, and many pay nothing; the benevolence of the founder preventing his turning them away from his door.

sible, and then, with a few rude materials which he possessed, pursue his darling studies. One fine summer evening he was sent by his father on an errand, which led him for some distance along the river banks. The varied loveliness of the scene filled the boy's ardent mind with rapture, while the peaceful calm of sunset tended to soothe the repining emotions which were ever ready to arise when he thought of his humble lot. He had long contemplated leaving home, and pushing his fortune in a foreign land: the thought recurred now as he watched his own bright Lee gliding on towards the ocean. But how could he leave his parents?—how tell them that he must forsake the humble occupation to which they had destined him? An opportunity offered sooner than he had expected. An American vessel was in the harbour, and the captain, who was ready to sail for New York, wanted some additional hands. He happened this evening to be taking a stroll by the river side, and remarked young Grogan gazing wistfully on the waters.

'Holla! youngster,' cried he; 'would you like to take a trip across the Atlantic this fine weather?'

The youth started, and looked up. We do not know what reply he made, but it certainly was not in the negative, for before two days had passed, Nathaniel Grogan was shipped on board the Ajax; and his weeping parents, after giving him their parting embrace and blessing, watched with anguish the swelling sails that bore away their only boy.

Ten years passed on, and the Grogans heard nothing of their absent son; they believed him to be dead, and mourned for him as only parents can mourn; but woes of another kind came on them. The father one day, in cleaving a piece of timber, cut his hand severely; he did not at first attend to it properly, and the pain and inflammation in a few days became so great that a fever ensued, and his life was in danger. After a long illness, he began slowly to recover, but continued for some time unable to work. All his savings were expended, and he found himself and his wife reduced to the utmost poverty. Sometimes the poor invalid, when eating his scanty meal of potatoes, so ill suited to restore his wasted strength, would say, with tears in his eyes, 'Ah, if our poor Nat could only have contented himself at home, what a help and comfort he might be to us now!' Then his wife would turn her weeping eyes towards a landscape hanging on the wall, which her son had placed there the day before he sailed, and say, 'God is good, James; let us try and be resigned to his holy will.'

One day when Grogan was nearly recovered, he was sent for by a rich and benevolent gentleman residing in the neighbourhood to execute some trifling jobs in his house. The carpenter's clothes were so old and worn, that he felt almost ashamed to present himself at the door of a handsome dwelling. His employer, however, received him most kindly, and ordered refreshments for him before he proceeded to work. After the poor man had partaken of a hearty repast, Mr — called him, and said, 'I want to bespeak some deal tables and chairs from you, Grogan; but first come into the drawing-room—one of the window frames is strained, and I want to have it settled.' The carpenter of course obeyed, and taking off his shoes at the threshold, entered a more splendid apartment than he had ever seen before.

'Wait there for a moment,' said Mr —; 'I will come directly, and show you what to do.'

Left alone in the drawing-room, Grogan had leisure to look about him. At first he felt bewildered by the splendour of the furniture and richness of the hangings that surrounded him. He also remarked several paintings; but one in particular arrested his attention. It was placed leaning against the wall in an excellent light, and the old man started when he gazed at it. There he saw his own likeness standing in his workshop, everything in it drawn with the utmost fidelity, as it appeared on the well-remembered evening when he bade his son farewell. The figure of the boy appeared

in the foreground, but his face was not seen; for it rested on his mother's shoulder, in whose arms he was locked, and whose meek countenance of woe was portrayed with matchless fidelity. With clasped hands and parted lips the old man gazed; he did not speak or stir till Mr —, who had entered the room unperceived, touched his arm and said, 'Does that picture, Grogan, remind you of any one?'

'Oh, sir, my boy—my boy!' It was all he could say. His chest heaved, and tears, such as poverty and sickness failed to draw, streamed down his cheeks. A side-door opened, and a man rushed in. Who would have recognised the slight pale-faced stripling in that tall handsome figure? But the father knew the soft-toned voice that now, with touching gentleness, besought his pardon; and the father felt the quick bright glance of that eye meeting his, whose beams he had mourned as for ever quenched. It was indeed his long-lost son, returned to comfort him and his wife in their old age.

Since we lost sight of Nathaniel Grogan he had passed through many vicissitudes. He had experienced in the new world all the varied chances of a wandering life, and suffered many and bitter privations, so that often, in utter weariness of spirit and hopelessness of heart, he felt almost ready to lie down and die. How did he mourn over the wayward temperament which led him to forsake his parents and his country; yet he shrank from returning to them a penniless outcast. He vowed to himself that he would achieve honour and competence ere he again trod the green fields of Erin. That vow, through his own persevering endeavours, and the disinterested kindness of some rich countrymen whom he met in America, he was enabled to keep. Having realised some money by the sale of pictures in the United States, he came over to his native city, recommended to the kind and powerful patronage of Mr —. During the voyage, the vessel was for some time becalmed, and Grogan occupied the tedious hours in committing to canvas that parting scene, which the lapse of years had failed to efface from his memory. Like the patriarch of old, his heart was bursting with the question, 'Doth my father yet live?' and, like him, when the sight of that father once more gladdened his eyes, 'he fell upon his neck and kissed him'; and then 'he nourished his father and his father's house with bread.'

The subsequent career of Nathaniel Grogan was respectable and tolerably prosperous. He taught drawing with success for many years in his native city, where, however, his talent failed to be appreciated as fully as it deserved. Some of his paintings still adorn the collections of the gentry in the south of Ireland.

FLYING MACHINES.

If the desire to fly conveyed the presumption that man was ever destined for its enjoyment, it can only be said to be very lamentable that this long-deferred faculty has yet to be realised. But that it is the fascinating occupation of some ingenious minds to draw plans and devise machines for this end, the press has never long suffered us to doubt. A modest, and, for a marvel, a sober-minded little book, by one taking the name of Dædalus Britannicus,* is one of the most recent of such records, and has, by its appearance, suggested the cursory consideration we propose to bestow upon this subject. We conceive, however, that there is a legitimate distinction to be recognised between the arts of *flying* and *floating* in the air. The distinction is such as prevails between a rudderless, oarless, sailless boat, at the mercy of the billow on which it reposes, and a steamer full of volimotory powers. So here, ballooning—that is, being hauled up a certain distance into the sky, and let down again wherever the wind wills—and aerial navigation are very dissimilar things. The one we have attained to; but it is, to say the least of it, a

* Aerial Navigation. By Dædalus Britannicus. Sherwood. 1843.

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


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It is needless, in the present advanced state of information, to go into any account of the origin or history of balloons. By the ingenuity of Mr Green and others, the balloon has apparently attained perfection; but after all, it is nothing more than a toy—a machine helpless in the midst of the atmosphere. Unlike the ship at sea, it has nothing against which sails or rudder can be made to act. Theorising men of science, however, are not satisfied, and new contrivances to guide the machine have been attempted. One of these consists of a sail placed horizontally, or vertically, in connection with proper sustaining apparatus attached to the car. Mr Edgeworth first proposed the use of this resisting surface to the Royal Irish Academy in 1795, but it was principally for facilitating the ascent and descent of the machine. A Mr Evans appears to have conceived the first successful method of directing the flight of the machine. Using a small 'Montgolfier' balloon, he suspended a large oblique surface beneath it. When the balloon ascended, it ascended in the direction toward which the upper edge of the oblique surface looked, and descended again to the point to which the lower edge was directed. Thus a sort of aerial tacking was attained. The course which a balloon thus fitted would take in its ascent, might be described thus ; then when it attained the highest point, the edge of the plane would be reversed, and the balloon would descend thus ; or the whole course .

It was proposed that two balloons should be used—a Montgolfier below, and a hydrogen a considerable height above. Biot remarked, this was placing a furnace underneath a powder magazine. It was manifest that aerial voyaging, if only to be accomplished by this means, had little to recommend it to the philosopher, and none to the expedition traveller. This idea, therefore, fell to the ground for a time. The motive powers of the steam-engine were then thought of, and it was proposed to place a light engine in the car, which should actuate a pair of vanes on either side. But the weight of engines, fuel, water, and the necessary attendants, has hitherto been an insurmountable difficulty. The lightest marine-engine, on the condensing principle, cannot be made under at least twelve or thirteen hundredweight per horsepower. Many ingenious plans were devised for reducing the weight of the steam-engine. Mr Gurney invented some engines, which, with their fuel for one hour, did not weigh more than 300 pounds per horsepower. Sir George Cayley, an accurate mathematician and a sound philosopher, clung with invincible tenacity to the steam-propulsion idea, and proposed the use of a balloon made of Mackintosh's India-rubber cloth, filling it with steam, and at the same time propelling the car by a steam-engine beneath. He concludes by expressing his belief that Dr Darwin's lines, so often quoted, and in our day in part so strikingly fulfilled, should yet receive their fulfilment in the regions of air:—

'Soon shall thy arm, unconquered steam! afar
Drag the slow barge, or drive the rapid car;
Or on wide-waving wings expanded, bear
The flying chariot through the fields of air.'

The steam-engine being thus apparently a hopeless drag, our aeronautic geni returned to balloon-maneuvring. A Dr Macsweny of Cork has written a pamphlet, in which he enters into a description of the aéro-tactics; and there are several curious modes of balloon progression described by this sanguine gentleman. One method of navigation is called *balloon-warpping*. It requires two balloons, which must be connected by a long rope; and after some perplexing fashion or other, it is stated that the aeronauts can by this means wind or warp one another along. Another equally curious and whimsical, and, in our estimation, of about an equal feasibility, was called *crescenting*. Let our readers imagine the strides of a giant pair of compasses, in half

circles, across a country, and they will form some idea of the plan proposed under this head. Two balloons were requisite also in this case: under the car of one was a long pole, with a couple of planes of canvas projecting downwards from it. The other balloon was to be made stationary, a brisk breeze was to blow, and the balloon with the pole-planes to be hauled across the current. Thus it would be made to describe a great semicircle—and in this way we were to fly across England! Wings and oars filled with gas were also tried; but this proved a vanity likewise. It was then thought that these erratic machines—balloons—might be made available for the purposes of traffic by means of 'balloon-ways.' This contrivance was by fixing a number of posts, like the posts of our electric telegraphs, from one town to another; a long rope was sustained by these in a spring catch, which ran through a ring in the bottom of the car. Thus the balloon was guided—that is, was to be guided—from place to place.

Passing these fanciful contrivances, we may advert to one which, though discovered long since by Baldwin, still keeps its place in aerial navigation. This is the invention of *hedging*. Probably it derived its origin, as well as name, from the artifice common in navigating a vessel down a stream—which is by carrying an anchor trailing under her bows; thus steerage-way is gained on the vessel. Mr Green, as a substitute, uses the long rope, called the 'guide-rope.' By allowing the end of this rope to trail on the ground, rotation of the machine is prevented, its course is retarded, and a guiding power is to some extent established. It is to be remembered, however, that the rope, when long, is of itself a great addition to the weight of the machine. To meet this objection, a tapering rope has been proposed, the thickest end being attached to the car. The rope thus acts also in some measure as a regulator of the height of the machine. If it has a tendency to descend, more rope is thereby supported on the ground, and the balloon becomes more buoyant; if it rises, it has to carry more rope. A dangerous accident sometimes occurs from the end of the rope lashing round trees and houses; this has been remedied by fastening a long rattan cane to the extremity. After all, even the guide-rope, the simplest and best of these plans, is of very limited application on land. At sea, possibly, it might prove of value. Altogether, we cannot for ourselves look to the guide-rope for much practical benefit beyond its preventing rotation. The success of aeronauts in the air alone having proved so limited, many plans have been suggested for a union of aéro and hydro-nautics, and several hybrid machines were constructed. In some of these the steam-engine was placed in a boat, which dragged the balloon after it. We are at a loss to discover any superiority over an ordinary steam-vessel in this whimsy.

Perceiving the futility of these schemes, some ingenious men first conceived the idea of forming a machine after the principle of a fish! Their reasoning was ingenious. They perceived the fallacy of comparing a balloon to a ship; and adopting a juster argument, determined to construct an aerial machine on this novel rule. Their machine was called the *aëronautic fish*. It was first planned in the year 1789: it contained many ingenious contrivances: water was used for ballast: it had wings working with cranks, by which its flight was to be secured. But the most curious idea about it was the plan for ascending or descending. The machine being built on the model of a fish, was long and sharp-pointed; underneath it was a weight, which was movable from end to end by a series of ropes and pulleys. When it was desirable to ascend, the weight was pulled down to the tail; this made it heavier, and consequently the prow rose up. If the machine would fly now, it would take an upward course. But if the desire was to descend, the weight was hauled down to the fore part, and it followed, of course, that the direction would be downwards. The balloon was of a long, fish-like figure, by which it was hoped that the tendency to rotation would be destroyed. The machine was constructed in

France, and it is said that Marshal Ney, who took the deepest interest in its construction, spent as much as 100,000 francs upon it. It was launched, it floated, with feeble powers it flew, but it would turn on one side. All the ingenuities were in vain; and after a long struggle of patience, talent, hope, and money against the difficulties of the subject, it was thrown aside in despair.

The next attempt had a similar termination. In the year 1835 there appeared in the papers the advertisements of the European Aeronautical Society. Men were prepared for something wonderful, and they were not to be disappointed. In the Victoria Road, London, a dock was built, in which the lines of the first aerial ship were laid down. The name of this machine was the 'Eagle.' Borrowing the idea of the fish aërostat, the object of the inventors was to imitate a fish as far as possible. A vast curiosity was excited by this announcement, and for a time the Victoria Road Dock was the attraction of the learned and unlearned, the ignorant and the scientific. Time wore on, and the machine, when complete, may be thus described.—In order to obtain the requisite buoyancy, a principal part of the Eagle consisted of an immense balloon, in the form of a horizontal cylinder, terminating in a cone at each end. This part of the ship was one hundred and sixty feet long, and sixty feet in height. It was of such dimensions as to contain, by calculation, 200,000 cubic feet of hydrogen gas; consequently the floating capacity was sufficiently large to admit of the suspension of a long car. The ingenious projectors, anxious to carry out their type, had contrived a clever apparatus for imitating the air-bladder of the fish. It is familiar knowledge that the fish is able, by the compression it can exercise over this receptacle, either to rise to the surface or to sink itself to the bottom. This idea was developed also in the Eagle. Along the car ran two iron pipes; these were connected with an air, or in this case, a gas pump, which, by means of a tube entering the balloon, drew out the gas from thence, and pumped it into the iron pipes. In so doing, the effect was precisely similar to that produced by the fish: the machine became specifically heavier, and sank down. To elevate it again, it was only needful to let out some of the compressed gas back into the balloon, when, becoming specifically lighter than an equal bulk of air, the Eagle rose. The next step was the propelling machinery. Keeping true to their original idea, it was constructed so as to resemble, on a vast scale, the pectoral and ventral fins, and the tail of a fish. There were four pairs of fans, two of which were placed on each side of the car. They were made of cane and varnished cotton, by which it was hoped the requisite strength and lightness would be secured. These fans were moved by a windlass, which was worked by the crew. Now the Eagle was to be a really useful invention. It was to make aerial voyages to Paris and back. It was to carry seventeen individuals, and to accomplish the journey in six hours! It was not intended to fly at a greater altitude than three hundred feet, which would clear all ordinary obstacles; and the machine could, on extraordinary occasions, easily rise by means of its compressed gas. Neither was it intended to brave a storm: if the wind were in favour, so much the better; but if, on the contrary, it was right in the Eagle's eye, it was not to be contended with—she was to return, and wait for fair weather. The inventor of this machine is understood to have been Count Lennox. In the year previous to its appearance in London, it is said to have been tried in Paris; but that city proving a bad starting-place, it was brought over to wing its way thither from London. The Eagle never flew; the scheme proved an utter failure; and the name and day-dreams of the European Aeronautical Society are all that now remains of it.

The most recent applications of machinery to balloon propulsion were two small models—the one by the 'veteran aeronaut' Mr Green, the other by Mr Monck Mason. In 1840, Mr Green exhibited in the Polytechnic Institution a small balloon, three feet in

diameter, which certainly did travel in any given direction in the still air of the great room. This he effected by letting a guide-rope hang from the car, and attaching to the car a pair of windmill vanes, which were moved by clockwork contained within. The direction of the aërostat was in a line with the guide-rope, and horizontally. In 1843, Mr Monck Mason effected the same object by affixing an Archimedean screw upon a spindle which protruded from the car. In both cases the result was only such as was to be anticipated—*aërial navigation* was not advanced by either.

The 'Ariel,' the far-famed invention of Mr Henson, is the first modern attempt to construct a machine to fly by mechanical powers alone. The idea was first started about five years ago, and the interest and curiosity produced will be well remembered. Even the legislative assembly caught the infection, and the House of Commons passed the bill for the constitution of the Aërial Transit Company. Sober expectations of seeing the Ariel sweep on rapid pinion over the top of St Paul's were raised in the minds even of thinking men; and wondering crowds went down to Poplar to look at something which popular report declared to be the real machine. The description of it is as follows:—It consisted of a large light frame, 150 feet in length, 30 feet in width, and containing therefore an area of 4500 square feet. The frame was to be covered with varnished linen or silk. There was also a tail, which, turning on a joint, was to direct the Ariel's flight. In the centre of the frame the car was attached. After the requisite arrangements for passengers and the stowage of fuel, came the motive power. This is said to have contained some remarkably clever adaptations. It consisted of a light and powerful steam-engine, suspended in the middle of the wings. It drove two sets of vanes, each twenty feet in diameter, which were placed at the hinder edge of the wings. The boiler was equally remarkable. It was formed of fifty hollow truncated cones, each one being three feet long, and five and a half inches in diameter at the base. These cones were arranged with the blunt ends downwards, all round, and above, and below the fire, thus presenting a surface of fifty square feet to the action of the flames. The steam thus generated was to supply two cylinders of twenty-horse combined power, and after fulfilling its functions, was to be condensed in a number of small tubes, which would be kept sufficiently cool by the rapidity of the flight. Water was thus economised—only twenty gallons of which was said to be sufficient for the boiler to work with. The whole weight of this steam-engine of *twenty-horse power* was put at the fabulous figure of 600 lbs. The Ariel was to start by first running down an inclined plane, the resistance of the air was to carry her off free, and then the vanes were to sustain and to propel her on her way. The main reliance of the inventor appears to have been upon the large resisting surface his machine offered to the air in descending. Calculating the load at 3000 lbs., there was a provision of a square foot and a half for every pound weight—that is, the area of resistance was 4500 square feet. Now it is easily ascertained that a weight equal to the above, under the most favourable circumstances, has a gravitating tendency equal to thirteen miles an hour, or eighteen feet a second—all that the surface of resistance can do being to retard the fall. To sustain this weight, falling at this rate of speed, the power requisite amounts to at least that of sixty horses; and even then nothing would be gained over an ordinary balloon, if we except a pretty rapid tumble should the engines stop work. Therefore the engines of the Ariel must have been trebled in power before it could even *float*; while to fly at the rate of fifty or sixty miles an hour, it would be necessary to raise their power to that of two or three hundred horses. It need scarcely be added that the Ariel never fulfilled those highly-coloured expectations which were entertained of her. A small model was exhibited, which, working by clockwork, and sustained at the end of a balanced arm, certainly flew round; but this was all.

Now, the scheme just put forth by Dædalus Britannicus has one merit—that it is a complete novelty, and can be compared in no respects to its predecessors of any kind. Without meaning the smallest unkindness, we cannot compare the representation he has designed of it to anything more appropriately than a flying whale! It is composed of a stout horizontal frame formed of fagots of bamboo, containing within itself a long silk balloon tapering to a point at each end. On each side of the frame are two pairs of boxes, made of sheet iron, supplied with movable lids, which are connected with the main rods of four wings. The wings are to be formed of long and narrow silk planes or feathers, one to be circular in form, twenty feet in diameter, and so connected with the frame by joints and springs, as to make the upward movement in an oblique direction, while in the downward action the whole under surface will be exposed to the resistance of the air. On the under surface of the whale-like balloon is to be a car twenty-five feet long; and at one extremity a conic shield is to guard the balloon from injury; while at the other a rudder or tail, twenty-seven feet long, is to direct its flight. It will be asked, what is the moving power? The answer will be heard with surprise: the successive explosions of a mixture of gas and air in the boxes at the root of the wings, by which means they will be made to flap about twelve times a minute! The balloon, says Dædalus Britannicus, is not to be depended upon for its assistance; it is a mere reservoir for gas. The explosion is to be effected in the four boxes by the electric spark. The inventor calculates on thus attaining a power equal to eighty horses! The weight is placed at 2000 lbs. The velocity he prudently declines to conjecture. 'Judging from the analogy of our model *aéronaute*' [the birds] 'we may expect a rate of progress almost unknown on earth.' Were we to venture an opinion upon the probable success of this machine, we fear it would be found at variance with the sanguine expectations of its author.

To sum up. Willing as we are to welcome the faintest dawn of any invention which will really and in every sense benefit our fellow-men, we must join in the desponding conclusions of many far better able to form a sound decision than ourselves, and say, that notwithstanding that probably upon no subject has so much power of mind been concentrated as upon *aërostation*, and that in a period altogether miraculous for its mechanical attainments, the hopes that it will at any time prove a practicable, or at least a valuable art, appear few and faint indeed. The experience of storm-driven *aéronaute*s might have taught them ere this what a toy is the most stupendous of their machines in the tumults of the aerial ocean. And if aerial navigation is to be reserved for fair weather and prosperous gales, our position is already proven.

INDIAN RECREATIONS.

The love of strife and bloodshed would appear to be an original sin of humanity, which is only subdued by the gradual influence of civilisation. In the 'state of nature,' as it was formerly called, this savage passion flourishes in its greatest energy; and in the wildest and loveliest solitudes the ocean holds in its embraces, we find the human inhabitants inspired with the deadliest hatred against each other—family against family, tribe against tribe, nation against nation. It would be agreeable to be able to set this down as the result of circumstances; but unfortunately the same thing prevails throughout the entire world, in paradises of beauty and plenty, as well as in those ungenial wastes where the shivering and hungry savage murders for a meal.

In process of time, when the state of nature proves to be no state of nature at all, but merely the imperfect and rudimental condition of beings destined for a loftier rank, a change takes place in the aspect of society—a portion of the warring groups are welded into one, and form a barbarian state, probably under the

arbitrary government, at first, of some individual who has risen to this eminence by his talents or determination. Their love of strife can now be gratified only by national wars or occasional revolutions—the only other bloodshed taking place in form of law, or by the conventional tyranny of the great over the mean. But although in this stage greatly advanced beyond savagism, the original taint in their character is by no means eradicated. It assumes, however, a new phase. It expends its vicious energies upon slave-combats and fights of animals; and the bloodthirstiness of the people loses its character of wild courage, becomes allied to cowardice and effeminacy, and paves the way for subjugation, and eventually for a new regime, which is probably destined to advance the race another step in moral progress. It is proper to observe, however, that civilisation does not move like a fluid, overflowing a whole country at a regular level. On the contrary, it leaves masses of the people comparatively untouched; and at this moment, the cock-fighting of the Malays is somewhat more paralleled by the cowardly brutality of the Welsh main of England.

We have been led into this train of thought by a description, quoted from a Calcutta paper in the 'Indian News,' of an entertainment recently given by the king of Oude to the governor-general, at his majesty's capital Lucknow. It consisted chiefly of combats of animals, which are not only interesting in themselves to the natural historian, but present some points to the moralist well worthy of his attention.

The exhibition, which was witnessed by the king and the governor-general, seated on raised thrones above the other personages, with the mob at a greater distance, commenced with an abortive fight between two elephants. 'Two little partridges were now made to fight, and with difficulty only separated from a desperate struggle. Two *neelgas* (a kind of antelope) were then set a-fighting, and really never have I seen a more furious encounter. They fought most desperately, and it was a real herculean task to separate them. You will be surprised to hear the names of the next combatants—a donkey and a hyena. The hyena had a rope tied round its neck, and from each side of this extended another rope held by two men. The hyena rushed on the donkey, who coolly turned round and gave his antagonist a kick on the head. Not relishing such treatment, the wild beast flew at the poor ass and pulled him over. The donkey, however, soon recovered himself, knelt on the hyena in the most cunning manner possible, and fastened his teeth in his enemy's shoulder, apparently grasping it with the greatest satisfaction. I believe the little fellow, who certainly raised the asinine species high in my favour, would have bit off a portion of it, had not an attendant separated the combatants. I have not seen anything more amusing than this fight, and less harmful in its result. Two terrier dogs next made their appearance; a bird was let loose on the water, and they sent after it. Their part was soon played. Two men next commenced their duties. The first combatant was a man with a large sword, very heavy, with a large handle. He wielded it about as if he was attacked by a host of enemies, groaned, advanced, retreated, jumped, and flourished his weapon with fearful rapidity, cut his neck, and eventually cut a melon in slices, as a feat of dexterity. Another succeeded him, who was in his movements as active as anybody could be. From his actions and motions, I inferred that he was imaginatively attacked by a regiment. He cut, waved his sword, put his shield to every part of his body, and, to say the least of it, was very well practised in agility. Two athletic persons then performed some surprisingly quick movements with weapons like two-pronged forks, and displayed the utmost nimbleness in all their evolutions. They met, closed, overthrew each other, seized each other's hands, loosened them, laid on their backs, and did everything surprisingly well and quick. Two others then fought with each other for about ten minutes, and performed some most admirable

manœuvres; neither, however, received many blows from his ambidextrous antagonist. A man with four swords next came forward, and gave us a specimen of his activity and nimbleness. He had two swords in each hand, the handle of one touching that of the other. The next performer was a man with a *bariat* (a spear with a ball on each end of it), who excelled in agility anything I have ever seen. He held it in the middle, and wielded it like lightning; I really believe it would have been impossible to have struck him with a sword. One man of herculean proportions then displayed feats of dexterity and strength with an immensely thick and heavy club. Men and boys then carried on the sports. Elephant fights succeeded; and an encounter between two rhinoceroses next amused the spectators. After being urged for some time by their keepers, they met, and made two or three pushes at each other with their horns; when suddenly one, not liking the contest, coolly turned round, and, to my surprise, walked into the water and quietly took a bath; the other seeing which, followed his example. Elephant fights commenced again; two of them fought so furiously, that they were only separated with difficulty by men rushing between them with fireworks. There was also some graceful horsemanship exhibited by some men on the opposite side of the water. One rode backwards and forwards with great address, fired a gun, and performed admirable feats of dexterity. At eleven o'clock we went to another place, to witness the tiger and buffalo fights. A buffalo, with a little calf, but not its own, was the first that appeared on the ground below us. Two tigers were then let loose upon it. A slight skirmish between the buffalo and a tiger took place, and another royal Bengal tiger attacked the poor calf, and tore it to pieces. The buffalo once slightly struck one of the tigers and broke his teeth. The skirmishing continued for some time, when master Bruin made his appearance. He was a little fellow, with a great deal of courage; and though he retreated from the charge of the buffalo, did not hesitate to attack a tiger, whom he severely wounded. The latter, however, too strong for the poor bear, seized him in his mouth, pressed his skull, and bit off the greatest part of the lower jaw. The bear retreated to the middle of the arena, staggered about for some time, and then fell down; the eyes turned dim, and he was taken motionless into the cage; a rope, however, prevented his having fair play. The buffalo, meanwhile, smarting only from the wound made by the tiger, several times charged towards the tigers, but did not assail them. Four tigers were then let loose, but only crouched down, and dared not attack the victorious buffalo.

What we would point out as worthy of remark in this detail, is the comparative humanity of the sports, and the obvious change in this respect which has taken place in the national character within no great space of time. In the travels of John Mandelslo we have an account of a dinner given by the native governor of Ahmedabad to his Dutch and English friends, at which the amusement was nautch dancing, performed by twenty girls. When these had danced themselves out, the host sent for another set, who, on refusing to come, were dragged into the presence, and, as a punishment for their insolence, *beheaded* on the spot before the European guests! These were the Indian recreations at the comparatively recent date when the English first appeared upon the scene.

We have only further to remark, that the animal fights of the king of Oude, while betraying the low status which the people hold as a community, are incomparably more humane than the amusements of a portion of the English people.

AUSTRALIAN WINE.

Such is the extent to which vineyards have been planted in New South Wales, that a single landowner, Mr M'Arthur, has made in one year 17,000 gallons of wine, some of which, when bottled, has been sold for 20s. a dozen at Sydney.

OGIER THE DANE.

[BY W. MOY THOMAS.]

[*Ogier the Dane* was one of the most favourite heroes of the ancient Trouvères. Ariosto and other Italian poets have also given him a place in their poems. The stories that are told of him are innumerable, embracing various portions of his long career, which extended to nearly a century, without impairing the vigour and bravery of his character. At last, on returning from the Holy Land, he is said to have landed by chance on an island belonging to the fay Morgana. That lady, who was a kind of siren, conceiving a strong passion for the ancient warrior, presented him with a crown of three flowers interwoven, which had the power of imparting to the wearer immortal youth, at the same time steeping his delighted senses in forgetfulness. How this charm was at length broken is not now necessary to be known. His fabulous adventures present that curious mixture of northern chivalry and Oriental superstition which is easily accounted for in the long connection of the Moors with Southern Europe.]

Often the starlight have I seen,
And many suns go up the sky;
And long with thee I must have been,
Morgana, dreaming pleasantly.
Yet still the triple-flowered crown
I wear, and in the marble font
I cannot mark a single frown
Whereby my happy years to count.

What was I ere I came to thee?
I know not; but a dream I have
At times of moving on the sea,
Or fighting with a turbaned slave;
Of river-shadowing palm-trees near
Great cities all of marble planned,
And wells of water cool and clear
Wide scattered in a barren land.

Great crowds of people, too, I've seen,
Who called me Ogier the Dane,
And hailed me bravest Paladin;
That fought for knightly Charlemagne;
And seemed it something like a cry
That once had stirred my quiet heart,
But now it passed unheeded by,
As pass the summers where thou art.

From these high towers of Avalon
I see the waters every way,
And the deep sky looks deeper on
The brimming surface of the bay.
Ah! I am safe in Paradise;
I know it, for it changeth not:
I will not fear where nothing dies,
So bring light myrrh and bergamot:

And bring me wine of sunny gold,
And ope the silver-hinged door,
And let the air blow soft and cold
'Mong curtains rustling evermore:
And my Morgana, come and sing
No hateful song of cruel wars,
And thou shalt find me listening
When all the sky is full of stars.

And pleasant shall it be to take
Aside the flowered tapestry,
And see on the fresh-water lake
A circle of the dotted sky.
And if the uncompanioned moon
Come up, we'll watch her all the night,
From rising till her silver noon,
And thence till morning drinks her light.

So gazing with a dull blue eye,
Entranced he listened, while the sun
Went down, and in the farther sky
A pale star twinkled all alone:
Then sad and weary was the gloom
That spread upon the quiet sea,
And still more sad and wearisome
Her low and thoughtful melody.

And from the dull and lowly mood
These things within his spirit wrought,
He spake of how the fair and good
To evil suddenly are brought.
Meanwhile deep thoughts enfilmed his eye,
And felt they like a dreary spell,
The shadow of the misery
That on the morrow there befell.

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